

CLAIMS

What is claimed is:

1. A light emitting diode assembly for an illuminated sign, the light emitting diode assembly comprising:
 - 5 a case being open upwards, in which a connecting recess is formed on upper portions of both sides of the case ;
 - a printed circuit board being installed in the case and being mounted on upper sides of a plurality of light emitting diodes;
 - a hollow cap being coupled in the connecting recess of the case, in which
 - 10 a plurality of wires pass through the cap; and
 - a synthetic resin material for covering the printed circuit board, the cap and the light emitting diode, the synthetic resin material being filled in the case.
2. The light emitting diode assembly for an illuminated sign as claimed in claim 1, wherein the cap includes a guiding pipe, in which a coupling groove is formed
- 15 along a lower edge of the cap so that the cap is inserted into the connecting recess of the case, in which the guiding pipe outwardly protrudes from a one side of the guiding pipe.
3. The light emitting diode assembly for an illuminated sign as claimed in claim 1, wherein the printed circuit board includes a transformer, a rectified circuit, a
- 20 constant voltage circuit and a constant current circuit, in which the transformer drops the voltage so that a common alternating current supplied through the wires are coincided with a driving voltage of the light emitting diode, in which the rectified circuit transforms the alternating current to direct current voltage, and the constant voltage circuit and the constant current circuit adjust a intensity

of a direct voltage supplied through the wire so that the direct voltage is coincided with the driving voltage of the light emitting diode.

4. The light emitting diode assembly for an illuminated sign as claimed in claim 1,
wherein the printed circuit board includes a constant voltage circuit and a
5 constant current circuit for adjusting the intensity of a direct voltage supplied
through the wire in order to harmonize the direct voltage with the driving
voltage of the light emitting diode.
5. The light emitting diode assembly for an illuminated sign as claimed in claim 1,
wherein the synthetic resin material comprises an epoxy resin.